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ABSTRACT

Purpose: this research aims to develop and empirically validate the concept of experience capability, which represents an organisation's ability to be adept at managing the customer experience. Organisations that build an experience capability develop an expertise in deploying a set of resources and routines to understand, evaluate, and improve how they interact with customers across all the points of contact.

Methodology: a rigorous process was employed to identify, operationally define, evaluate and validate six dimensions reflecting experience capability. The dimensions were developed and validated using relevant literature, expert interviews, item-sorting techniques, a pilot survey and two surveys, providing a degree of certainty that the intellectual insights are generalizable.

Findings: the experience capability concept is identified as comprising six dimensions that are informed by 27 measurement items. The six dimensions are employee training, employee empowerment, employee evaluation, experience performance management, cross-functional work, and channel integration. The findings provide evidence suggesting that the multi-item measurement scale exhibits appropriate psychometric properties.

Implications for managers: the empirically-validated 27-item measurement scale provides practitioners with an approach to evaluate and improve their organisation's experience capability. It permits both longitudinal comparisons of individual organisations and competitive benchmarking both within, and across, industry sectors. The approach alerts managers to the critical operational areas that should be measured and provides a structured method to pursue competitive advantage through CE capability.

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Originality/Value: developing valid and reliable measurement scales is an essential first step in effective theory building. The paper proposes a theoretical foundation for the experience capability construct and validates a corresponding measurement scale. The scale was developed carefully to achieve the specificity required to undertake meaningful practitioner-centric assessment while maintaining relevance across sectorial contexts. The results complement existing customer-centric experience research by providing distinct intellectual insights from a practitioner perspective. The developed scale permits future intellectual investigation through capability comparisons both within, and between, companies in different industries/sectors.

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1. Introduction

Since the publication of Pine and Gilmore's (1999) seminal book, interest in customer experience management (CEM), as an approach for strategic differentiation, has intensified. Numerous reports provide an indication of this strategic potential: Gartner (2014) suggests that 89% of companies compete based on the customer experience (CE); Walker (2013) highlights that CE will be the key brand differentiator, ahead of price and product, by 2020; Forrester (2016) reports that 72% of marketing professionals place the improvement of CE as the number one priority; Genesys (2014) indicates that a large majority of practitioners are convinced that proactive CEM contributes to higher levels of customer satisfaction and retention; Markets and Markets (2014) estimate that the market for CEM could be worth up to USD 8.39 billion by 2019. Whilst the origins of CEM can be identified in the entertainment sector, where the primary operations objective is to provide memorable and emotionally-engaging CEs (Zomerdijk and Voss, 2010), organisations such as banks, telecommunications, utilities, retail services, healthcare services and parcel delivery services are now also pursuing strategic differentiation through CEM (Ponsignon *et al.*, 2015; Beltagui *et al.*, 2016). This involves a substantial transition in strategy; from a focus on maximizing efficiency and cost reduction, to a focus on the creation of positive CEs (Voss *et al.*, 2008).

Academic research has suggested that positive CEs have a significant impact on organisational performance through increased customer satisfaction, loyalty, and through word-of-mouth recommendations (Lemke *et al.*, 2011; Klaus and Maklan, 2012). There is, however, little evidence regarding the specific organisational capabilities required to achieve these performance outcomes. Research in CEM, from the organisation's perspective, is embryonic and exploratory (Kranzbühler *et al.*, 2017). Intellectual advancement concerning CE phenomena has centred on definitional properties and on strategic potential. A CE describes the customer's personal perception and interpretation of interactions with the tangible and

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intangible components of a service delivery system (Helkkula, 2011; Johnston and Kong, 2011). Interactions with products, processes, technology, and employees occur across multiple stages that comprise the customer journey. A critical, but underdeveloped, issue centres on the management of organisational resources and processes to support the creation of positive CEs (Patrício *et al.*, 2008; Kwortnik and Thompson, 2009). As Lemon and Verhoef (2016, p.84) indicate, organisations "should develop and master several mindsets and capabilities to successfully manage the CE". There is, therefore, a need for intellectual advancement regarding the concept of 'experience capability'. This is broadly defined as "the firm's ability to choreograph CEs" (Voss *et al.*, 2008, p.264). More precisely, it is proposed that organisations that build an experience capability develop an expertise in deploying a set of resources and routines to understand, evaluate, and improve how they interact with customers across all the points of contact. Establishing an experience capability affords the delivery of superior experiences and provides opportunities for strategic differentiation.

Extant research on more general discussions of capability-based theory provides a useful point of departure for experience capability research (Bharadwaj *et al.*, 1993). Teece *et al.* (1997) propose to view organisations as a set of mechanisms by which customer-focused capabilities are identified and developed. Bundled organisational resources (e.g. technologies, knowledge and skills) collectively support the deployment of superior capabilities that are difficult to imitate and duplicate (Das and Teng, 2000). According to capability theory, core capabilities allow organisations to pursue competitive advantage in a sustainable way (Voss, 1995). Identifying and explaining important organisational capabilities has been highlighted as a key research challenge in the capability literature (Ethiraj *et al.*, 2005).

A measurement scale for experience capability is needed by both the research and practitioner communities. While previous research provides an indication of the strategic imperative of capabilities for firm performance, Lemon and Verhoef (2016) highlight a

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significant gap in research on how firms can best manage the CE. Little is known in the literature about the capabilities that underpin and enable CEM (Homburg *et al*., 2017; Voss *et al*., 2008). From a research perspective, the lack of a robust provider-oriented measurement scale addressing CEM presents a constraint to intellectual development. In particular, the absence of accepted dimensions and measurement items for an experience capability construct mitigates comparative empirical studies and obfuscates alternative routes to competitive advantage. A robustly developed and fully tested research instrument permits future intellectual investigation through capability comparisons both within, and between, companies in different industries/sectors. From a managerial perspective, Homburg *et al.* (2017) report that CEM is poorly understood and that many firms are unsure about to implement it effectively. Evidence-based recommendations for practitioners on how to manage CE are limited and underdeveloped in the literature. Research needs to build upon case-based evidence, derived from individual, context-specific instances, to propose an approach permitting comparison and generalizable intellectual advancement. An empirically-validated scale provides guidance to managers on the critical operational areas that should be measured, benchmarked, and improved to pursue competitive advantage through CE. It helps address the question of how organisations should be structured in order to manage the CE effectively. Additionally, a measurement scale is needed to enable the development of deeper understanding of the relative importance of experience capability dimensions to successful firms.

The research presented in this paper addresses these issues. Specifically, the paper develops and validates the experience capability construct. This is informed by six critical dimensions identified from a synthesis of current literature complimented with a preliminary empirical study. A robust analytical approach for construct development is undertaken and a fully tested research instrument is presented. As argued by Colquitt and Zapata-Phelan (2007), introducing and verifying a new construct represents one of the highest levels of theory building

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as new constructs "generate a number of new research directions that can shape future thinking" (p.1284).

The remainder of this article is organised as three distinct sections. First, the result of the synthesis of salient literature is presented in Section 2. Specifically, an argument for the presence of six important dimensions, which comprise the conceptual domain of the experience capability construct, is presented. This is informed by complimenting existing literature with a preliminary study involving 20 CEM professionals. Second, the processes used for developing and validating the new measurement scale are described in Section 3. This includes a detailed description of data collection procedures and the statistical tests adopted to assure the validity, reliability and adequacy of the data. A detailed description of the derivation of the measurement scale is also provided. Third, the findings from the study are discussed in Section 4. This aligns the findings with extant theory, addresses the implications for management practice, and describes the study's limitations.

2. Conceptual Development

Reviews of CE research suggest that the literature addressing CEM from the organisation's perspective is limited (Helkkula, 2011; Kranzbühler *et al.*, 2017; Lemon and Verhoef, 2016). Provider-oriented research contributions comprise several conceptual frameworks (Meyer and Schwager, 2007; Patrício *et al.*, 2008; Voss *et al.*, 2008) and a small number of empirical studies. These studies have been conducted in hedonic services (Stuart and Tax, 2004; Kwortnik and Thompson, 2009; Zomerdijk and Voss, 2010), financial services (Ponsignon *et al.*, 2015), and online services (Ding *et al.*, 2010). Additionally, several generic studies are identified (Johnston and Kong, 2011; Beltagui *et al.*, 2016; Homburg *et al.*, 2017). Interestingly, customer-centric CE studies that typically examine the relationships between customer

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characteristics, CE perceptions, and customer outcomes such as satisfaction and loyalty are numerous in the literature (Kranzbühler *et al.*, 2017). To illustrate, Bueno *et al.* (2019) identify 19 new scales seeking to provide instruments for measuring the CE. All of these scales were developed from the customer's perspective. Whilst customer-oriented studies provide insights to inform the management of CE activities, limited research explicitly addresses the capabilities required to orchestrate CE from the provider perspective.

To provide a robust platform for construct and instrument development a corpus of academic literature, industry reports, and whitepapers were synthesised. These findings were combined with the results of a preliminary field study incorporating twenty CEM professionals across a broad context. The interviews were focused on capturing the key attributes that organisations (should) possess to be/become adept at providing superior CEs. Detailed information about the participant's profiles and the interview protocol adopted can be found in the Web Appendix. This preliminary qualitative study contributed to enhancing the accuracy and comprehensiveness of the construct. Three main results were obtained and embedded into the scale. First, interview results helped to delineate the content domain of the construct. In particular, the concept of experience design, which refers to the ideation, development and implementation of new experiences, was excluded from the domain. Interviews suggested that most organisations are not in a "green field", meaning they have existing operations that must be orchestrated to deliver the customer experience. 'Designing' involves different organisational routines and mechanisms than 'managing' existing operations. Including design would make the domain definition too broad, potentially creating construct-irrelevant variance and threaten construct validity (Neuberg *et al.*, 1997). Moreover, aspects of CEM that are unique or specific to particular organisational contexts such as the physical environment (i.e. bricks and mortar) in which the experiences take place were omitted. This concept pertains to situations where the

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customer is physically present in the operation only (Lovelock and Gummeson, 2004). Consequently, it would restrict the wide applicability of the scale.

Second, the preliminary study was useful in confirming and defining the core dimensions of the construct. For instance, employee empowerment is a well-known construct in the service management literature. Based on practitioner insights, existing definitions in the service design area (Silvestro, 1999) and in the service recovery context (Smith *et al*., 2009) were adapted to make the concept suitable to the experience capability domain as it specifically pertains to empowering employees to provide a good customer experience. Moreover, an additional dimension that had not been captured in the literature review (i.e. cross-functional work) was consistently identified as relevant and therefore added to the scale. Third, practitioner input directly informed the construction of entirely new measurement items as well as the modification of items from existing scales. To illustrate, several managers emphasised the importance of including the ability of organisations to run change programs to improve the customer experience. This feedback was incorporated as an item ('we run change programs to improve the customer experience') to capture the performance management dimension of the scale.

This phase of the research (synthesis of literature and qualitative interviews) resulted in the identification of six key dimensions to inform the second-order experience capability construct (see Figure 1). Each concept is defined and positioned in extant theory following the introduction of the central tenets of capability theory and an explanation of the rationale for this theoretical foundation.

Capability theory

Capability theory proposes that organisations achieve superior performance through the deployment of idiosyncratic, valuable, and inimitable customer-focused capabilities (Prahalad

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and Hamel, 2006; Teece *et al*. 1997). This resonates with Weerawardena (2003, p.17) who defines capabilities as the "capacity to perform a range of organisational routines for the purposes of delivering products and services to markets in a manner that outperforms competitors". This focus on combining organisational resources (e.g. technologies, knowledge, and skills) to create valuable performance-enhancing capabilities, which are difficult to imitate and duplicate (Das and Teng, 2000), provides the source of competitive activity. The identification, development and leveraging of a set of core capabilities allows organisations to pursue competitive advantage in a sustainable way (Voss, 1995).

This paper proposes that experience capability, articulated as the ability to deploy resources and routines to understand, evaluate and improve how organisations interact with customers, is crucial for attaining competitive advantage. While extant research has identified, in general terms, the need to develop cultural mindsets, technologies, knowledge, and skills to effectively manage the CE (Voss *et al.*, 2008; Homburg *et al.*, 2017), the articulation of specific experience capability dimensions appears to be absent.

Experience capability dimensions

Experience capability is centered on the measurement, management, and improvement of existing CEs. It is focused upon the operational elements of the delivery system that are under the direct control of the provider. Experience capability is related but also conceptually distinct from other capability constructs. In particular, Karpen *et al.* (2012) address a value co-creation capability and highlight the importance of networks of actors (Jaakkola *et al.* 2015; Vargo and Lusch, 2016). There is, however, a conceptual difference in the unit of analysis. Specifically, the investigation of experience capability is focused upon the operational elements that managers can manipulate to enable the CE. This resonates more closely with work by Helkkula (2011) and Voss *et al.* (2008). Similarly, important work on service innovation competence

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(Menor and Roth, 2007; Den Hertog *et al.*, 2010) that provides intellectual insights into capabilities associated with the introduction of new services is acknowledged. The focus of experience capability is, however, centred on the measurement, management, and improvement of existing experiences (see Verhoef *et al.*, 2009). This involves tracking, organising, and managing the interactions between the delivery system and the customer (Lemon and Verhoef 2016). The distinctiveness of experience capability pertains to this contextual and scope contingency.

The holistic framework of Voss *et al.* (2008) addresses how service providers can manage the delivery system to support the provision of the CE. It emphasises four main decision areas: management systems (Orgware), customer touchpoint management (Customerware), communication mechanism management (Linkware) and structural factors (Stageware). This framework was used to conceptualize the nomological network of key constructs for experience capability that are embodied in three core principles (P1-3). P1 represents a focus on human resources. Firms that a have a strong experience capability recognise that providing a successful CE is realised through their staff (Zomerdijk and Voss, 2010; Ponsignon *et al.*, 2015; Beltagui *et al.*, 2016). P1 (Orgware) is focused on preparing staff for service interaction (employee training), allowing staff to respond effectively to service execution and recovery requests (employee empowerment), and rewarding employees for experienced-based performance (employee evaluation). While recent technological advancement, such as service automation capitalising on Artificial Intelligence (AI), provides a degree of challenge to this principle, it is acknowledged that human resources remain important for the realisation of the CE (Larivière *et al.*, 2017). P2 represents a holistic focus on the organisational system (Customerware and Linkware). Multiple sources of experience data from multiple points of contact between provider and customer (Ponsignon *et al.*, 2015; Homburg *et al.*, 2017) are required to inform and improve CE performance. Experience capability also requires cross-functional work. This

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resonates with extant research in process management that emphasises a holistic activity system perspective (Smart *et al.*, 2009). The third principle (P3 – Stageware) relates to the consistency of interaction between the customer and the service delivery system (channel integration). Existing research emphasises the need for omni-channel management to ensure good CE and to guard against channel fragmentation (Brynjolfsson *et al.*, 2013; Verhoef *et al.*, 2015; Lemon and Verhoef, 2016).

The nomological network of experience capability therefore comprises of six dimensions that are embodied in three core principles (P1-3). Together these capabilities provide a representation of a provider's orientation towards the CE. Each of the six dimensions is discussed further below.

(P1) Employee training

This dimension indicates the existence (and extent) of training mechanisms, which emphasises a desired approach for customer engagement. Experience-oriented organisations train employees to handle customer interactions and provide guidelines for the resolution of customer problems. The literature provides clear support for the view that the provision of an appropriate range of training activities is important (Voss *et al.*, 2008). Johnston and Kong (2011) report that employees who undertake CE training are more engaged and in a better position to contribute positively to the CE as they see their jobs from the point of view of the customer. Similarly, Berry *et al.* (2002) highlight that experience-based training mechanisms equip all employees with the required set of skills and knowledge. In addition to direct customer engagement, non-customer contact staff undertake activities to support customer contact staff in delivering a superior CE (Zomerdijk and Voss, 2010). Their role has been likened to back-stage employees in theatres who provide assistance to the front-stage event (Pine and Gilmore, 1999).

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(P1) Employee empowerment

Service systems are faced with the challenge of high customer induced variety (Frei, 2007). This necessitates an ability to respond to customer requests (and undertake response action) outside of the normal operating protocol (established in training). This dimension therefore represents the extent to which employees are able to exercise personal judgement in dealing with customer requests and in solving customer problems. The literature suggests that empowered employees are more capable of providing a good CE in both service execution and recovery. Empowerment is a key dimension in existing classification frameworks examining service delivery systems (Cook *et al.*, 1999). Specifically, customer-oriented organisations give their staff significantly more decision-making than cost-focused organisations (Ponsignon *et al.*, 2011). Empowering staff makes it possible to create rapport with customers and to personalise the experience of individual customers (Zomerdijk and Voss, 2010). This argument has recently been extended to service recovery activities (Smith *et al.*, 2009; Contiero *et al.*, 2016).

(P1) Employee evaluation

Employee evaluation refers to the existence of formal mechanisms for reviewing employee performance against CE outcomes and rewarding the attainment of excellent CE. Experience-focused performance evaluation helps staff to understand their contribution to the experience that customers perceive (Johnston and Kong, 2011). Rewards are employed as a means to recognise employee effort and to both attain and maintain appropriate behavioural responses within the delivery system. It fosters staff commitment to providing a good experience for all customers (Voss *et al.*, 2008; Zomerdijk and Voss, 2010).

(P2) Experience performance management

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Organisations that have developed an experience capability are focused on continuously evaluating and improving the CE. More specifically, the data required to inform CE evaluation, and the subsequent improvement of the delivery system, resides in a multiplicity of internal and external sources. Homburg *et al.* (2017) stress the importance of managing the CE across the multiple points of contact that make up the customer journey. Several studies emphasise the necessity to gain a comprehensive knowledge of customer attitudes and behaviours (Berry *et al.*, 2002; Meyer and Schwager, 2007; Lemke *et al.*, 2011). This involves gathering and analysing a range of data from multiple sources including customers, employees, and internal processes to develop an intimate knowledge of how existing customers perceive and interpret all of their interactions with the organisation (Ponsignon *et al.*, 2015). This enables organisations to identify and implement process improvements to attain enhanced CE outcomes (Meyer and Schwager, 2007). Johnston and Kong (2011) found that organisations embarking on a CEM programme undertake deep customer research to inform improvement approaches and activities. Similarly, Patrício *et al.* (2008) emphasise the importance of visualising, analysing and optimising organisation-customer touchpoints.

(P2) Cross-functional work

To develop experience capability organisations are faced with maintaining the equilibrium of the entire service system. Multiple departments (e.g. operations, marketing, sales, customer service, IT, HR) must therefore collaborate and coordinate their activities to assure a unified approach to attaining CE. Cross-functional work is defined as the organisation's ability to share relevant information between multiple departments as well as to undertake coordinated work activity. Recently, scholars have argued that experience-focused organisations have an accrued need for increased collaboration and coordination across all the functions that are directly involved in delivering the CE or in supporting it (Voss *et al.*, 2008). Lemon and Verhoef (2016,

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p.84) claim that CEM "requires a multidisciplinary approach in which multiple functions cooperate to deliver a CE". Organisations that exhibit high levels of internal integration are more successful in sharing information between functions and in performing collaborative work. Darian and Coopersmith (2001) report that organisations increasingly remove barriers between functional departments to offer superior customer value. Kwortnik and Thompson (2009) emphasise that functional division between marketing and operations hinders an organisation's ability to deliver on the promised experience. Previous research exploring process management, particularly work that emphasises a systems approach and that promotes holism, resonates with this dimension (Smart *et al.*, 2009). These authors emphasise the cross-functional communication and control that is manifest in the information exchanges between business process and work activity in the organisational system.

(P3) Channel integration

The proliferation of innovative digital technologies provides distinct opportunities to engage customers in service encounters at their convenience. While these technologies provide potential benefits at the point of interaction, the attainment of positive CE is predicated on a consistent and seamless experience across all customer contact points (Lemon and Verhoef, 2016). Channel integration is therefore an important experience capability dimension. It is focused upon managing channel resources and operations to provide a uniform and seamless customer journey across digital (e.g. website, mobile) and conventional (e.g. branch/shop, telephone) service channels. Extant research suggests that achieving channel integration creates a stronger CE. Cao and Li (2015) indicate that retailers with better integration between their channels outperform less-integrated retailers. Rosenbloom (2007) argues that integrating online channels with conventional channels to create a fluid CE is the ideal situation. Moreover, several authors emphasise the importance of achieving high levels of consistency in CE delivery

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regardless of the channel being used by the customer (Sousa and Voss, 2006; Brynjolfsson *et al.*, 2013). This involves, for instance, ensuring that the information provided to customers is consistent across channels (Oh *et al.*, 2012).This is however a formidable challenge. Sixty percent of executives admit that their organisation's service channels are poorly or very poorly integrated (OBS, 2011).

3. Research Methodology

A rigorous process was employed to develop valid measurement scales for the six identified experience capability dimensions. The methodological approach adopted mirrors closely what has been done in previous research (Menor and Roth, 2007; Smith *et al.*, 2009).

Scale Development

The scale development procedure is based on previous studies (e.g. Churchill, 1979) that have produced valid measures. The initial steps centre on specific item generation while the latter stages focus on providing an initial validity check from which a formal questionnaire can be developed.

Domain Specification

Initially, the potential constructs were identified and clearly defined from the extensive literature review and preliminary study (as discussed previously). Once completed, multi-item measures were developed with the goal of effectively assessing the constructs of interest. This resulted in the identification of 62 measurement items (see Appendix 1 for a complete item list).

Measure Purification

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The 62 items were purified to reduce the likelihood that measurement error could occur. A manual item-sorting technique (Churchill, 1979; Moore and Benbasat, 1991; Segars and Grover, 1998) was undertaken to establish tentative validity and to highlight potential issues with the measurement items. A sorting process was conducted by academics familiar with both the general service arena and the CE domain (see Web Appendix for details). In total 13 domain experts were supplied with a randomly-organised list of items together with a list of the study constructs and associated definitions. Each expert was asked to match each item to one of the supplied constructs. The results of the item-sorting analysis indicated that fourteen items had a low level of agreement (less than 70%) and were subsequently dropped from the analysis (Appendix 1 indicates which items were dropped at this stage, as denoted by the superscript a).

Questionnaire Construction and Content Validity Assessment

Following purification, a survey instrument was constructed from the remaining 48 items to collect data. Respondents were asked to assess the extent to which they agree with each statement about CEM in their own organisations with each item being assessed from 'Strongly Disagree' (=1) to 'Strongly Agree' (=7). The validation of the survey instrument was conducted via a two-stage pilot study.

The first stage involved pre-testing the questionnaire with seven CE managers from various business contexts (i.e. retail banking, utilities, business services, transportation, and telecommunications) and two CE consultants with experience in a wide range of industries. The purpose of the exercise was to determine if and where problems arise with individual questions or instructions and to gauge the estimated completion time. The participants were asked to complete the questionnaire and provide feedback on its readability and user-friendliness in terms of the clarity of the wording of questions and instructions. Feedback was aggregated and analysed which led to the revision of several items. The second stage consisted of an online

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pilot survey. In total 115 responses were obtained from a convenience sample of UK and US MBA students. The statistical procedure consisted of two successive exploratory factor analyses using both an orthogonal and oblique rotation to analyse single constructs as well as combined analyses using multiple rotation methods. Overall, the results indicated that several items were problematic as some items cross-loaded on several dimensions whilst others did not load on a single factor. All problematic items were carefully reviewed and amended by the research team to ensure clarity.

Content validity is the extent to which scales truly measure the construct that is intended based on the domain of meaning of the items comprising the scale (Churchill, 1979). The most commonly accepted method for ensuring content validity is through assessments made by experts familiar with the constructs under investigation. As noted above, the scales were initially developed from both the academic literature and interviews with CE managers and refined through the utilisation of academic experts in the form of the item-sorting procedure. Further refinement was then accomplished by soliciting further information from CEM practitioners and by conducting a large-scale pilot survey.

Empirical Validation

The procedure described above resulted in a structured questionnaire that exhibits both content and face validity. However, a more extensive empirical test is required to ensure the newly developed scales provide the appropriate foundation for proper theory generation. The following sections outline the questionnaire administration process as well as the associated analysis necessary to effectively validate the measures.

Survey Administration

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The audience of the CE network (https://www.cxnetwork.com/about-us), which consists of approximately 100,000 practitioners, provides useful information about the overall population of interest. CE network is a global online community focusing on providing its members with an exclusive learning environment, community and resource hub. A large number of different industries are represented in their database with financial services, telecoms, and retail organisations accounting for 55%. Members consist primarily of CE, customer service, and customer insights professionals with varying levels of seniority. Specifically, VPs/Directors/Heads and Managers comprise 54% and 37% respectively. Sample job titles include Chief Experience Officer, Director of CE, VP of CE Design, Director of Marketing and Director of Customer Service.

Senior personnel in charge of CEM in their organisations were targeted in both the UK and US to complete the survey questionnaire. Recognising that many organisations have not created formal CE roles and that responsibility for CEM is often assigned to an existing function (Voss *et al.*, 2008), a screening question (i.e. are you responsible for managing and improving the experience of your organisation's customers?) was included to ensure that target respondents were actually reached.

Since business professionals are increasingly reluctant to complete traditional mail surveys, a web-based survey was conducted (Deutskens *et al.*, 2004). The data were collected in two phases. First, the questionnaire was created on SurveyMonkey. To reach suitably-qualified respondents, the CE network editor was contacted and agreed to feature an invitation to complete the survey and a description of the study's rationale and objectives in their weekly newsletter for four consecutive weeks. Out of approximatively 16,000 people who receive the newsletter, 173 individuals followed the link and began the survey. Eventually, 86 complete and usable survey responses were obtained. While the theoretically-possible response rate is 0.54% (i.e., 86/16,000), an effective response rate of 49.7% (86/173) is reported as it is only

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possible to ensure the survey was seen by individuals who initially followed the supplied link. This low theoretical response rate can be explained by several factors: questionnaire length; lack of incentives, time constraints (busy senior professionals) (Deutskens *et al.*, 2004). Second, to increase the sample size and to reach additional respondents, Qualtrics' panelling services were employed. Panel members were sent an email invitation and a link to the questionnaire hosted on Qualtrics' online platform. The service sent a total of 867 invitations. Each panel member was assigned a unique identifier code to prevent the same person from completing the survey multiple times. In total 50 complete and usable questionnaires were collected through this source, constituting an effective response rate of 5.77%. Overall, across the two phases of data collection, 136 usable responses were obtained constituting an overall effective response rate of 13.1%.

The survey questionnaire included an engagement check to maximise the validity of the responses: "if you read this, please tick the 'I don't agree at all' box". Respondents who did not respond to this check were removed from the sample. In addition, controls were implemented to mitigate the risk that the same individuals responded to both surveys. Both samples were evaluated to identify repeated patterns of respondent IP addresses and profile variables. The Qualtrics population is US only whilst 72% of the CE network population is from outside North America resulting in a total potential overlap of 28%. A comparison of each respondent's IP address and profile information (Organisational Size, Job Title, CE programme duration, Industry) was undertaken. This analysis showed that there were only two potential instances of similarity (IP addresses repeated). An investigation revealed that two separate attempts were made by the same respondent. Given the minimal duplicate IPs and unique respondent profiles, the safety of the data was deemed to be assured.

To address the possibility of non-response bias standard testing of early and late responders were incorporated to identify the presence of structural differences (see Armstrong

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and Overton, 1977). Chi-square tests between early and late responders are conducted across all relevant groups that describe the sampling frame (customers served (B2B vs. B2C); organisational size (across five groups); industry type). The results of these analyses (see Table 1) indicate that there does not appear to be significant issue with any biases associated with non-response.

<Please Insert Table 1 about here>

Consistent with the characteristics of the overall population of interest, the respondents represent a diverse set of industries, with no single industry accounting for more than 19% of the total sample, and organisation sizes as shown in Table 2. A majority of responding organisations (55%) had initiated their CEM program within the past five years. Sample respondent job titles included Head of CE, CE Manager, Customer Service Manager, Customer Insight Manager, Service Quality Manager and Service Excellence Manager among others.

<Please insert Table 2 about here>

Unidimensionality Assessment

Unidimensionality is the existence of a single latent construct that underlies a set of measurement items (Anderson *et al.*, 1987; Hair *et al.*, 1998). The set is deemed unidimensional if the correlations among the items are accounted for by a single, common factor (Netemeyer *et al.*, 2003). Without unidimensionality, constructs are regarded meaningless; measures span beyond the stated construct definition (Segars, 1997). To assess unidimensionality an exploratory factor analysis (EFA) was used followed by a confirmatory analysis used to verify the hypothesized factor structure (Segars, 1997; Gefen *et al.*, 2000; Netemeyer *et al.*, 2003). Competing schools of thought were identified regarding the appropriateness of "within-block" or "across-block" factor analysis. The former relates to EFA being conducted in isolation for

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each construct, whereas the latter relates to EFA on a total set of items across all constructs. As prior literature has noted (e.g. McDonald, 1981, p.108), "a unidimensional set of variables may cease to be unidimensional in the context of further variables but may keep the same factor loadings on the original common factor". Additionally, it has been noted that within-block analysis may indicate the existence of a single factor within the block but fail to relate these items in an adjacent block (Koufteros, 1999). Given these competing schools of thought, EFA was conducted utilizing both within- and across-block designs to ensure the unidimensionality of the constructs.

The initial EFA was conducted using SAS 9.4 with each construct (6 in all) being assessed individually. The results of this analysis indicated that all of the constructs were, in fact, unidimensional. However, given the aforementioned controversy, the data was re-analysed using the across-block design. In doing so, the full set of 48 items were simultaneously entered into the EFA. The result of this analysis indicated that multiple items did not properly load on the construct of interest or had a significant cross-loading. Fourteen items were removed due to the aforementioned criteria, leaving 34 items across the six constructs for future analysis (Appendix 1 indicates which items were dropped at this stage, as denoted by the superscript b). Given that overlap can exist in a tight conceptual domain, a loss of approximately thirty percent of the initial item pool was not deemed to be excessive. Both the initial and final EFA results are listed in Appendix 2.

After dropping the problematic items, the remaining 34 items were analysed via a confirmatory factor analysis (CFA) using Amos 24.0. In this case, each construct was linked to its associated item set from which the analysis was conducted. To assess CFA results, three common fit indices were used: Comparative Fit Index (CFI); Tucker-Lewis Index (TLI); Incremental Fit Index (IFI). The stated acceptability standard of 0.90 (Sharma, 1996) was achieved. These were used as prior research has noted their stability across a wide range of data

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parameters (e.g. sample size) (Marsh *et al.*, 1988; Hatcher, 1994; Sharma *et al.*, 2005). The initial CFA results, however, indicated that a small number of items were potentially problematic (a path loading below 0.70) or exhibited cross loading as evidenced by modification indices greater than ten (noted by Narasimhan *et al.*, 2001). Therefore, all potentially problematic items (seven in total) were removed and a second CFA was conducted using the remaining 27 items (Appendix 1 indicates which items were dropped at this stage, as denoted by the superscript c). The results of this analysis indicated that the model fits the data well (χ^2=580.6, df=309, CFI=0.92, TLI=0.91, IFI=0.92) which lends support for the conclusion that the individual constructs are unidimensional.

Reliability Assessment

Reliability is the relative percent of variance in an observed variable that is accounted for by the true scores. However, the true score cannot actually be obtained so a more accurate definition refers to the stability of the scores for a particular scale (Hatcher, 1994). The most common reliability aspect is the assessment of internal consistency where an internally consistent measure is one with highly correlated items with both each other and the total scale (Hatcher, 1994; Hair *et al.*, 1998). The most common metrics used to assess internal consistency are Cronbach's coefficient alpha and the composite reliability (Hatcher, 1994). In both cases, the expectation is that the individual construct score will exceed a value of 0.70 (Nunnally, 1967). Each of the six constructs of interest was assessed for both Cronbach's alpha and composite reliability (Table 3). As can be seen, all six constructs exhibit acceptable levels in both metrics, which indicates that the newly-created scales are reliable.

<Please insert Table 3 about here>

Convergent Validity Assessment

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Convergent validity is the extent to which varying approaches to construct measurement yield the same results (Campbell and Fiske, 1959). Additionally, it can refer to whether items comprising a scale behave as if they are measuring one common construct (Davis, 1989). Convergent validity can be assessed using several different methods with the most common including evaluating the multi-trait matrix or evaluating the measurement model for the constructs under consideration. Since multiple methods were not used in this research, the confirmatory factor analysis approach was used to assess convergent validity. Specifically, convergent validity is demonstrated when individual items load significantly on a single construct and that the measurement model has acceptable fit statistics (Hatcher, 1994; Segars, 1997). As demonstrated by the acceptable fit statistics of the measurement model (χ^2 =580.6, df=309, CFI=0.92, TLI=0.91; IFI=0.92) and the significant path loadings (see Table 4) for all measured constructs, the measures demonstrate convergent validity.

Beyond the model fit tests, convergence was also tested for through the utilization of the average variance extracted (AVE) for each individual construct. In this case, the AVE should exceed a recommended threshold value of 0.50 to determine if the variance shared between the measurement items and the construct exceed the variance that would be explained by the individual measurement errors associated with each item. As can be seen in Table 3, the scales meet the threshold with the AVE values ranging from 0.65 to 0.77. Taken collectively, the tests undertaken provide assurance that convergent validity is demonstrated.

<Please insert Table 4 about here>

Discriminant Validity Assessment

Scales demonstrate discriminant validity if the items of each construct only reflect that single construct (Bagozzi *et al.*, 1991). Discriminant validity is the ability of a set of measurement items to differentiate between two related, but conceptually different constructs. Discriminant

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validity is ensured when a scale does not measure the construct it was not intended to measure. Traditionally, a multi-trait matrix is used to assess discriminant validity (Campbell and Fiske, 1959). However, more recent research has evolved to utilise factor analysis (Netemeyer *et al.*, 2003) as well as the AVE test (Fornell and Larcker, 1981).

Both exploratory and confirmatory factor analyses were employed to provide initial support for the existence of discriminant validity. In this case, the EFA results establish the initial evidence for discriminant (and convergent) validity. The EFA is followed by the CFA whereby the factor structure is verified via the utilization of a structural equation model (SEM) methodology. As noted above, the model fits the data well, which provides evidence that the scales are, in fact, discriminant. Additionally, the AVE was calculated for each construct and this value was compared with the shared variance between all the associated construct pairings. To demonstrate an appropriate level of validity, each individual AVE should exceed the squared correlation (shared variance) between constructs. The results (see Table 3) provide support for discriminant validity as each AVE exceeds the squared correlation between construct pairs.

Second Order Construct Analysis

When theory suggests that the correlations among first-order constructs can potentially be more effectively explained by a higher-order factor, additional analyses can be conducted to test for the existence of a second-order construct (Bollen, 1989; Byrne, 1998). In the case of the experience capability concept, there is no explicit guidance in the literature as this is an emergent theoretical domain. However, it is logical to assume, given both theoretical derivation and CEM expert guidance, that the six first-order constructs are subordinate dimensions of a higher-order factor (experience capability).

An important note is that the higher-order factor is the theoretical explanation for the covariation of the first-order constructs (Segars and Grover, 1999). Therefore, the second-order

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model cannot exhibit an improved fit when compared to the correlated, first-order model. However, the low-level model can be used as the target fit for the high-level model with the aim of providing a comparable fit via a more parsimonious, theoretically-relevant model. The efficacy of this comparison can be examined through the utilization of a target coefficient (T), which is calculated as the chi-square of the first-order model divided by the chi-square of the second-order model [$\chi^2_{FirstOrder} \div \chi^2_{SecondOrder}$] (Marsh and Hocevar, 1985). Since the coefficient is a comparison of an 'ideal' model to a competing model, it has an upper bound of 1.0 with higher numbers indicating that the relationship among the first-order factors is effectively being captured by the second-order model. Following the procedure of Segars and Grover (1999), each model's chi-square value is adjusted for the degrees of freedom for the individual model (i.e., χ^2/df). The adjusted χ^2 for the first-order model is 1.87 (580.64/309), and the second-order model value is 1.89 (600.30/318). The target coefficient is then calculated to be 0.99, which lends support for the second-order model being a valid, parsimonious representation of the relationships between the first-order constructs. Additionally, support for the second-order model is demonstrated by the paths between the first and second order constructs all being significant (see Table 5).

<Please insert Table 5 about here>

Robustness Check

Given that both the exploratory and confirmatory analyses were conducted on the same data set, multiple analyses were re-run by dividing the data into different test and confirmation samples. As the data were collected across two different sources, it was decided to use one sample (collected from SurveyMonkey) as the initial test sample and the second (from Qualtrics) to validate the analysis. The analysis followed the same procedure outlined above with the goal of minimizing capitalization on chance as noted in prior literature (MacCallum *et*

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al., 1992). In conducting this analysis, the initial EFA was generated from a sample of 86 respondents. The factor structure mirrored the one generated from the full samples with one exception. One item exhibited a high degree of cross loading. However, given the smaller sample size, it was decided to proceed with the confirmatory analysis with this variable included to mimic the original data procedure.

The second sample (n=50) was employed to conduct the confirmatory analysis with the exception that the factor structure that emerged from the original CFA was employed. In this case, the data fit the model moderately well as exhibited by the associated fit statistics (χ^2 =509.9, df=309, CFI=0.83, TLI=0.81, IFI=0.84, RMSEA=0.12). These results are slightly below the recommended threshold values. The small sample size, however, provides an explanation of this result. Even with this moderate performance there is sufficient evidence (factor structure confirmed and path loadings are significant) to suggest the robustness of the scales.

To further validate the scales, a second analysis was conducted using an industry-balanced test and validation sample that have consistent representation from each industry. These samples were generated by randomly selecting half the sample from each industry group. The test sample consisted of 66 respondents and was used for the initial EFA using SAS 9.4. The EFA results indicate that the factor structure emerged consistently with the original split-sample analysis. The only additional insight that these evaluations provide is that one item did not load significantly on a construct and another cross-loaded across two constructs. For consistency, it was decided to keep all the items for the CFA as the smaller sample size can hinder statistical power.

CFA was conducted using the 27 items that emerged from the initial analysis (and was supported by the aforementioned EFA). The model fit proved to be acceptable (χ^2 =523.8, df=309, CFI=0.89, TLI=0.88, IFI=0.90, RMSEA=0.10), and the results supported the overall

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factor structure as all item loadings were significant. The analysis was also ran for the second-order construct (χ^2 =533.7, df=318, CFI=0.89, TLI=0.88, IFI=0.89, RMSEA=0.10) from which one could compare the validity of the higher-order factor. The results indicate that the second-order factor effectively explains the relationships between the first order constructs (T-statistic = 0.99) in the same manner as with the total-sample analysis. In sum, the robustness analyses provide further evidence on the stability of the scales across multiple means of generation and validation.

Alternate Sample Validation

In order to fully validate the creation of the new scales, an additional sample of data was collected. The new data were obtained via the usage of the Qualtrics' panelling service similar to how a portion of the original data were collected. This process resulted in the generation of 169 new respondents, constituting a response rate of 16.1% (see Table 2 for demographic information). The new data were compared to the original set to ensure no respondent overlap with results indicating that both samples were unique. Since the goal was scale validation, this group were only provided the survey items that were finalized via the development process noted above. Therefore, the new data were only analysed via a CFA. Results of this analysis indicate that the data fit the theoretical model reasonably well (χ^2 =636.9, df=309, CFI=0.90, TLI=0.87, IFI=0.89, RMSEA=0.08) and had all path loadings as being a significant indicator of the representative construct (see Table 4).

The validation sample was also used as a means for validating the second-order construct as was done with the original data. Again, the chi-square comparison test was used, where the values were scaled per the degrees of freedom. The second-order model fit statistics were χ^2 =662.0, df=318, CFI=0.88, TLI=0.87, IFI=0.88, RMSEA=0.08. The values used to obtain the T-statistic were 2.06 (636.9/309) for the first-order model and 2.08 (662/318) for the

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second-order model. The associated T-statistic was then calculated to be 0.99 which mirrors the value that was obtained for the creation sample. Albeit slightly different, the second sample is effective at providing the necessary validation for the created scales as the analysis demonstrate that the scales produce similar results across another, unique data sample. Therefore, this shows that the scales are valid representations of the theoretically-grounded constructs of interest.

4. Discussion

Implications for theory

The study addresses recent calls to improve scholarly understanding of the capabilities that underpin CEM (Lemon and Verhoef, 2016; Homburg *et al.*, 2017), and more specifically to explore the essential components of the experience capability concept (Voss *et al.*, 2008). The study introduces, develops and empirically validates a new second-order latent construct, termed experience capability, which captures an organisation's ability to develop an expertise in deploying a set of resources and routines to understand, evaluate, and improve how they interact with customers across all the points of contact. Grounded in capability theory, the conceptual framework draws from the CE literature as well as interviews with experienced practitioners responsible for CEM. Initial exploratory work suggested that the conceptual domain of experience capability comprises six dimensions, embodied in three core principles, that are essential to CEM: employee training, employee empowerment and employee evaluation (P1 – human resources); experience performance management and cross-functional work (P2 – organisational system); and channel integration (P3 – channel integration). These six dimensions were operationally defined, evaluated, and validated using survey data from a large sample of senior CEM professionals representing organisations from a wide range of industries. The empirical results provide sufficiently-robust evidence to suggest that the 27 item measurement scale for measuring experience capability exhibits appropriate

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psychometric properties. This provides a distinct opportunity to pursue intellectual advancement through comparative and longitudinal study using a single instrument.

This study's original contribution is to propose a theoretical foundation for the experience capability construct and to validate its measurement scale. The new measurement scale affords a careful examination of how organisations develop their experience capability to achieve superior CEs. Providing a valid and reliable measurement scale is a necessary step to build theory in an emerging research field that lacks paradigmatic neatness (Venkatraman, 1989). As argued by Colquitt and Zapata-Phelan (2007), articles that introduce and validate a new construct provide an essential first step in effective theory building and offer research directions that influence future thinking. The objective in this research was to provide an intellectually informed and validated instrument to facilitate the acquisition of robust empirical data that permits future intellectual advancement. Given the rigorous tests, the instrument can be used with a high degree of confidence by scholars seeking to further develop CEM theory.

Moreover, this article addresses calls in the capability literature for studies that identify important organisational capabilities (Ethiraj *et al.*, 2005). The development and validation of the experience capability construct provides conceptual clarity and empirical support for Bharadwaj *et al.* (1993)'s proposition that quality and customer service related skills constitute an important organisational capability. The findings strongly suggest that experience capability is a distinctive capability that can be developed and added to an organisation's existing portfolio of capabilities (Holcomb and Hitt, 2007). As the first empirical study of experience capability, this research contributes to the capability literature by identifying and describing the six dimensions that organisations need to identify, develop and leverage to enable the delivery of superior experiences and provide opportunities for strategic differentiations (Voss, 1995). It also offers support for the view that capability

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theory provides a suitable lens to describe and explain how organisations manage and improve their service delivery systems (Silveira and Sousa, 2010).

Implications for practice

This article has important implications for practitioners in pursuit of strategic differentiation through CE. The scale is particularly useful for managers who want to comprehend the determinants of experience-oriented organisations and who wish to undertake benchmarking comparisons of their experience capability with other organisations. The measurement scale, developed with cross-sector data, is thought to be widely applicable, and therefore permits benchmarking studies both within and across sectors.

The experience capability framework and the six distinct dimensions provide practitioners immediate guidance on how to organise the service delivery system to support the CE. The 'cross-functional view' capability, for example, challenges the view that the CE is the responsibility of a single function of the firm, such as marketing for instance. More generally, managers who focus on CE to improve competitiveness, and seek to enact such a mindset throughout an organisation, should consider developing their experience capability according to six core dimensions: (i) implement training mechanisms that focus on how employees should deal with customers, (ii) encourage employees to exercise personal judgement in dealing with customers and in solving customer problems, (iii) put in place formal mechanisms for reviewing employee performance against CE metrics and rewarding the provision of the CE achieved, (iv) utilise data to develop an in-depth understanding of the CE to measure performance and change the production and delivery system and improve future CEs, (v) engineer multiple departments or functional groups to collaborate and coordinate their activities to manage the CE, and (vi) integrate channel resources and operations to provide a consistent and seamless experience

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across the entire customer journey. In combination, these dimensions provide the basis for competing on CE.

Furthermore, measuring the consequences of CEM with performance indicators such as customer satisfaction or positive word-of-mouth is useful but these metrics provide insufficient information about how performance was achieved. To be in a position to deliver positive CEs continuously, an organisation needs to regularly assess and improve the routines and processes that are involved in CE provision. The measurement instrument provides the opportunity for practitioners to compliment these existing approaches. CE consultants and managers can use it as a diagnostic tool to evaluate an organisation's ability to deploy CEM and to develop action plans for improving CE. This allows organisations to assess the "as-is" situation, highlighting an organisation's particular strengths and weaknesses, as well as the identification and prioritisation of improvement goals. An indicative approach for the deployment of the instrument, together with some points of caution, is outlined below. Managerial insight on experience capability may be obtained from a three-stage process:

1) As-Is quantitative assessment (Output: completed instrument)
    a. Identify capability strengths and weaknesses
    b. Establish a capability assessment team comprised of cross functional managers (marketing, sales, HR, operations, IT, customer service), representatives from front and back office and representatives of mixed seniority (with authority to action implementation)
2) Perform detailed qualitative investigation (Output: summary report)
    a. Perform face-to-face interviews
    b. Formulate focus groups
    c. Identify and assess relevant documentation (e.g. training plans and assessments, process maps, performance reports)

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3) Undertake action plan formulation (Output: action plan)

    a. Identify priority areas for improvement

    b. Identify and acquire resources for implementation (e.g. Customer First training programme) and determine timescales.

    c. Identify a coordinator/champion

In addition to internal assessment, the instrument can be used to encourage the sharing of good practices and to inform competitive benchmarking across organisations. CE practitioner events (e.g. CE Network; CE Professionals Association) provide opportunities to establish benchmarking groups. It can help to identify best practices that work for particular market segments, consumer goals, or within specific industries. It is likely that firms put different emphasis on the six capability components. These dimensions can be used to derive a set of organisational profiles based on the organisations' approaches to managing the delivery system for experience. This would help to understand how experience capability components are applied across a range of settings and to guide managers on how to implement CEM depending on relevant contextual factors.

While these recommendations, informed by discussions with practitioners post study, provide an initial point of departure for the formulation of an experience capability initiative, further insights are required to determine the critical factors associated with deployment. This is out of scope for this article. Two main directions for future work are proposed to inform this deployment. First, the instrument should be systematically applied and evaluated to determine the value that can be attributed to the instrument as part of an experience capability initiative. In-depth case studies should be undertaken to capture both the processual and analytic benefits in different situations. Second, longitudinal studies of organisations that have used the instrument, developed and implemented action plans, and reflected on the value of the

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instrument would provide insight into the effect of routine experience capability assessment and enhancement on firm performance.

Limitations

This study has five main limitations. First, it is recognised that industry and firm-specific dimensions of experience capability may exist and are unaccounted for in the present instrument. It must be noted that the scale development process pursued generalizability. The scale aims to be widely applicable across multiple organisations and industries to permit cross-industry comparison. For this reason, it covers a core set of six dimensions. The scale does not include aspects of CEM that are unique or specific to particular organisational contexts or settings. Second, this study uses a convenience sample to test the conceptual model. The process of reviewing the literature, conducting exploratory interviews and consulting expert judges helped to derive a set of six generic dimensions that span multiple industries, overlooking the specificities of any particular industries. These dimensions were then confirmed through a multi-industry survey. This diminishes the risk of industry bias in the results. However, future work should try and use a probabilistic sampling method to verify the generalizability of the scale. Third, the theoretically-possible response rate in the first phase of data collection is based on the overall readership of the newsletter containing the invitation to participate in the survey (i.e. 0.56%). However, there is no way to estimate how many individuals actually read the newsletter and saw the survey invitation link. This is why it was decided to report the effective response rate based on the number of people who followed the link (i.e. 49.7%). It is nonetheless acknowledged that more people could have seen the link but simply chose to ignore it. Fourth, as single respondents from each organisation completed the questionnaire, there is the potential for bias in the dataset. While this is partially addressed through the screening question, future research should attempt to collect data from several sources to reduce this potential bias. Fifth,

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a statistical limitation is highlighted. The model fit statistics (e.g. RMSEA) reported across the two data collection efforts are either slightly above recommended thresholds or denote a just acceptable fit. This issue is possibly due to the size of the samples being smaller than the recommended values for traditional covariance-based structural equation modelling. However, adequate support for the measurement model exists as it is statistically acceptable as well as theoretically and practically relevant.

Future research

The research presented provides an intellectual framework for the experience capability construct, together with a validated measurement instrument, at a level of specificity that permits future intellectual research. The results provide a strong theoretical foundation that permits several important avenues for future research. First, future work should theorise and empirically investigate the antecedents and consequences of experience capability. In particular, identifying various contextual factors and performance outcomes would help to provide a more precise understanding of the contingencies of superior performance through CEM (Voss *et al.*, 2016). This is consistent with calls for investigating the role of contingencies in the development and maintenance of organisational capabilities in the strategy literature (Ethiraj *et al.*, 2005). Second, several authors argue that it has become commonplace for multiple organisations to collaborate to develop and deliver the CE (Sampson, 2012; Tax *et al.*, 2013). The broad research problem is to understand how multiple organisations coordinate their efforts to co-produce customer value. Future research is encouraged to take into account the network view of the CE and to explore the implications for CEM of embracing cross-organisational experience capabilities. Third, scholars are more generally encouraged to use the experience capability scale in various samples and settings to strengthen and improve its psychometric properties. Given the role of CEM in gaining competitive advantage, valid and

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reliable measurement scales are needed to improve scholarly understanding of the phenomenon. This will provide more informed interventions in practice. Finally, an experience capability scale has the potential to be a source of inspiration for researchers interested in user experience (UX). UX describes all aspects of person's technology-mediated experience (Hassenzahl and Tractinsky, 2006; Lallemand *et al.*, 2015). The concept explores how a person feels about and evaluates an interactive system or product, such as a mobile phone (Hassenzahl, 2013), a computer game (Mandryk *et al.*, 2005), an online shop (Pappas, 2018) or an online community (Chen *et al.*, 2018). Similarly to CE research, measuring UX is challenging (Law *et al.*, 2014) and a range of approaches have surfaced to evaluate UX (Vermeeren *et al.*, 2010). Most methods and instruments rely on the inputs of users to obtain information about the perceived quality of the product. Importantly, the scope of CE and UX is different. For example, there could be a digital technology device that would rank high in terms of UX. However, the customer may rate their overall experience low when considering all touchpoints along the journey. The UX literature lacks an instrument for capturing the provider's ability to develop interactive products that support the creation of high-quality user experiences. Although the scope of CE and UX is different, the experience capability scale provides a useful reference point for researchers who seek to understand and measure UX capability.

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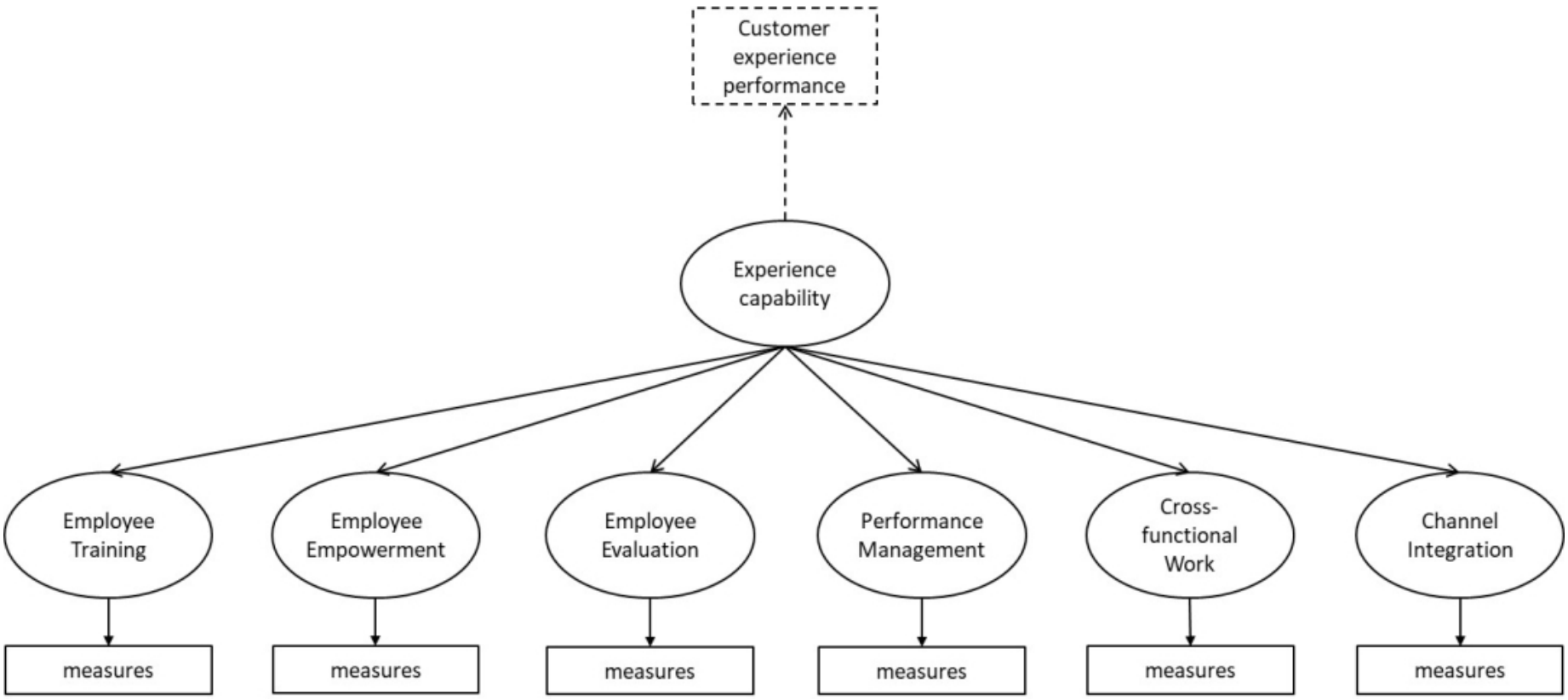

Figure 1: Conceptual model of experience capability dimensions

Table 1: Non-response bias analysis

Group	Chi-square test	df	p-value
Customer (B2B vs. B2C)	0.744	1	0.39
Industry	14.65	13	0.33
Organisational Size	3.50	4	0.48

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Table 2: Sample Characteristics

	Initial Sample		Validation Sample	
Industry	**Number**	**Percentage**	**Number**	**Percentage**
Financial services	26	19	15	9
Business services	18	13	18	11
Manufacturing	16	12	20	12
Retail	14	10	18	11
Consumer services	13	10	20	12
Healthcare	8	6	23	14
Information (computer/telecom) services	8	6	11	7
Education	7	5	4	2
Leisure/entertainment services	6	4	12	7
Utilities	6	4	0	0
Government or Non-profit	5	4	27	16
Transportation	5	4	1	1
Other	4	3	0	0
Organisation Size				
Lower than 100 employees	26	19	32	19
100 – 999 employees	40	29	34	20
1,000 – 4,999 employees	32	24	32	19
5,000 – 19,999 employees	25	18	32	19
Greater than 19,999 employees	13	10	39	23
Customer Experience Programme Age				
less than 1 year	21	15	10	6
1-5 years	55	40	30	18
5-10 years	20	15	33	20
10-15 years	16	12	19	11
greater than 15 years	17	13	60	36
unknown	7	5	17	10

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Table 3: Construct reliability, average variance extracted (AVE), correlations, and shared variance

Construct	(1)	(2)	(3)	(4)	(5)	(6)	Composite Reliability	Coefficient Alpha
(1) Employee Training	**0.70**	0.28	0.59	0.42	0.56	0.55	0.90	0.90
(2) Employee Empowerment	0.53	**0.65**	0.18	0.12	0.20	0.20	0.85	0.84
(3) Employee Evaluation	0.77	0.43	**0.74**	0.50	0.56	0.48	0.93	0.93
(4) Performance Management	0.65	0.35	0.71	**0.71**	0.64	0.37	0.91	0.91
(5) Cross Functional Work	0.75	0.45	0.75	0.80	**0.75**	0.50	0.95	0.95
(6) Channel Integration	0.74	0.45	0.69	0.61	0.71	**0.77**	0.94	0.94

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Table 4: Item Loadings

Construct	Initial Sample Std Path Loading	Validation Sample Std Path Loading
Employee Training		
Training mechanisms are in place to ensure staff have the competences to deliver the customer experience	0.89	0.81
We train our employees on how to diagnose and resolve customer problems	0.82	0.90
Our employees are trained to deal with customer queries and requests	0.75	0.87
We equip employees with the skills necessary to provide a good customer experience	0.87	0.79
Employee Empowerment		
We give our staff decision-making authority over customer problems	0.85	0.83
Employees may deviate from established guidelines when they interact with customers	0.76	0.68
Customer-facing employees are allowed a degree of discretion in their jobs	0.79	0.65
Employee Evaluation		
We evaluate employees on the quality of the customer experience they provide	0.79	0.59
Employees are assessed based upon their performance against customer experience metrics	0.84	0.62
People get rewarded for great customer experience outcomes	0.91	0.88
Systems are in place to reward individuals who foster excellence in customer experience activities	0.90	0.85
Employees are recognised for providing outstanding customer experiences	0.85	0.84
Performance Management		
We gather customer experience data from multiple sources (e.g. customers, employees, processes, vendors and suppliers)	0.78	0.75
We use both attitudinal and behavioural metrics to assess customer experience performance	0.86	0.68
We run change programs to improve the customer experience	0.84	0.66
Our performance metrics provide actionable intelligence to improve the customer journey	0.90	0.78
Cross-Functional Work		
Multiple departments are kept informed of important issues in the customer experience	0.88	0.77
Key decisions relating to the customer experience are communicated to multiple functional groups	0.92	0.83
Several departments collaborate to manage the customer experience	0.85	0.75
Customer experience performance is reviewed in cross-departmental meetings	0.82	0.76
Several functions are involved in making major decisions about the customer experience	0.86	0.53
Our departments coordinate their customer experience activities	0.87	0.71
Channel Integration		
The information we provide to the customer is the same in online and conventional channels	0.75	0.66
The stages in the customer journey are joined-up	0.85	0.82
We provide a seamless experience along the entire customer journey	0.89	0.79
Our organisation has integrated its conventional and digital channels to create a homogeneous customer journey	0.95	0.87
The end-to-end customer journey is fully integrated	0.94	0.88

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Table 5: Second order construct standardized path loadings

	Initial Sample		Validation Sample	
Indicator/Construct	Standardized Factor Loading	t-value	Standardized Factor Loading	t-value
(1) Employee Training	0.86	9.25	0.81	9.53
(2) Employee Empowerment	0.87	10.64	0.43	4.64
(3) Employee Evaluation	0.52	5.34	0.75	6.78
(4) Performance Management	0.82	8.56	0.88	9.91
(5) Cross Functional Work	0.89	10.89	0.92	9.14
(6) Channel Integration	0.80	10.26	0.77	7.78

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Appendix 1: Scales and associated measurement items

Construct and items	
Employee Training	
ET1	• Training mechanisms are in place to ensure staff have the competences to deliver the customer experience
ET2	• We train our employees on how to diagnose and resolve customer problems
ET3	• Our employees are trained to deal with customer queries and requests
ET4	• *Our organisation provides customer experience training to its employees*[b]
ET5	• We equip employees with the skills necessary to provide a good customer experience
ET6	• *A range of development courses or workshops on how to treat the customer are available to our employees*[a]
ET7	• *Customer-focused training programmes are tailored to the needs of individual employees*[a]
Employee Empowerment	
EE1	• *Our staff are permitted to use their own judgement in dealing with customers*[c]
EE2	• *Employees have the freedom to make the customer experience an enjoyable one*[c]
EE3	• We give our staff decision-making authority over customer problems
EE4	• Employees may deviate from established guidelines when they interact with customers
EE5	• Customer-facing employees are allowed a degree of discretion in their jobs
EE6	• *Employees are empowered to play an active role in optimising the experience of the customer*[a]
EE7	• *Employees are encouraged to take initiative in interacting with customers*[a]
Employee Evaluation	
EEV1	• We evaluate employees on the quality of the customer experience they provide
EEV2	• Employees are assessed based upon their performance against customer experience metrics
EEV3	• People get rewarded for great customer experience outcomes
EEV4	• Systems are in place to reward individuals who foster excellence in customer experience activities
EEV5	• Employees are recognised for providing outstanding customer experiences
EEV6	• *The customer experience is a key principle that governs how we deal with our employees*[a]
Performance Management	
PM1	• *We are able to pull together all of the pieces of information about a specific customer (i.e. single view of the customer)*[b]
PM2	• We gather customer experience data from multiple sources (e.g. customers, employees, processes, vendors and suppliers)

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PM3	• We use both attitudinal and behavioural metrics to assess customer experience performance
PM4	• *We know how we perform across the main customer touchpoints*[b]
PM5	• *Our organisation relies on customer feedback to monitor the customer experience*[b]
PM6	• *We have a good understanding of the customer's journey*[b]
PM7	• *Our performance indicators are partly decided by the customer*[b]
PM8	• *Customer feedback is used for the enhancement of the customer experience*[b]
PM9	• *We review our processes when customer experience performance trends fall below targets*[b]
PM10	• *A lot of effort goes into eradicating known break points to make the customer experience better*[b]
PM11	• We run change programs to improve the customer experience
PM12	• Our performance metrics provide actionable intelligence to improve the customer journey
PM13	• *We have a system which enables us to report all the things that have gone wrong in the journey of our customers*[a]
PM14	• *We have a clear view of what works and what does not in the customer experience*[a]
PM15	• *Customer experience performance data serve to trigger improvements in the service delivery system*[a]
PM16	• *Changes in customer experience preferences are monitored*[a]
Cross-functional Work	
CFW1	• *Our departments (e.g. operations, marketing, sales, finance, IT and HR) openly share customer experience information*[b]
CFW2	• *Changes to the customer experience are communicated across the entire organisation*[b]
CFW3	• Multiple departments are kept informed of important issues in the customer experience
CFW4	• *Customer experience reports are circulated to various departments*[c]
CFW5	• Key decisions relating to the customer experience are communicated to multiple functional groups
CFW6	• Several departments collaborate to manage the customer experience
CFW7	• Customer experience performance is reviewed in cross-departmental meetings
CFW8	• *Employees from different functional groups work together to solve problems with the customer experience*[c]
CFW9	• *We run interdepartmental workshops to address a range of customer experience issues*[c]
CFW10	• Several functions are involved in making major decisions about the customer experience
CFW11	• Our departments coordinate their customer experience activities
CFW12	• *Problems relating to the customer experience are tackled in a collaborative manner*[a]
CFW13	• *All departments are made aware of key or novel customer insights that are generated*[a]
Channel Integration	
CI1	• *We provide a similar level of customer service regardless of the channel used by the customer*[b]

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CI2	• *A customer's experience at a particular touchpoint is always consistent*[b]
CI3	• *Customers who choose digital and conventional channels at a given touchpoint are treated the same way*[c]
CI4	• *Responses to queries or requests posed through different service channels are consistent*[c]
CI5	• The information we provide to the customer is the same in online and conventional channels
CI6	• The stages in the customer journey are joined-up
CI7	• *A customer interaction taking place at a given touchpoint takes into account possible past interactions at other touchpoints*[b]
CI8	• We provide a seamless experience along the entire customer journey
CI9	• Our organisation has integrated its conventional and digital channels to create a homogeneous customer journey
CI10	• The end-to-end customer journey is fully integrated
CI11	• *A customer receives the same kind of service throughout his/her journey regardless of the channel the experience began from*[a]
CI12	• *Our organisation always provide a consistent experience regardless of whoever the customer speaks to*[a]
CI13	• *Product/service descriptions are consistent across and within channels (e.g. branch/store, telephone, website)*[a]

Notes: Items in italics were dropped during the purification process; [a] These items were dropped after the item-sorting analysis; [b] These items were dropped after the exploratory factor analysis; [c] These items were dropped after the confirmatory factor analysis.

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Appendix 2

Initial EFA Results

	Factor1		Factor2		Factor3		Factor4		Factor5		Factor6	
ET1	27		25		23		65	*	19		36	
ET2	18		34		16		64	*	26		21	
ET3	25		25		9		67	*	13		18	
ET4	**33**		**21**		**24**		**47**		**33**		**31**	
ET5	43		25		19		54	*	32		30	
EE1	21		25		10		7		65	*	3	
EE2	12		25		3		11		64	*	12	
EE3	14		15		12		15		77	*	8	
EE4	10		11		5		7		74	*	2	
EE5	13		15		6		14		70	*	14	
EEV1	26		22		24		37		7		60	*
EEV2	33		24		34		27		9		61	*
EEV3	34		28		19		19		21		74	*
EEV4	35		29		22		23		11		67	*
EEV5	40		27		23		24		21		57	*
PM1	**38**		**29**		**45**		**29**		**17**		**11**	
PM2	32		17		64	*	13		12		17	
PM3	30		24		73	*	20		5		26	
PM4	**40**		**31**		**38**		**28**		**22**		**19**	
PM5	**41**		**22**		**24**		**31**		**25**		**25**	
PM6	**43**		**39**		**26**		**31**		**24**		**13**	
PM7	**35**		**34**		**43**		**33**		**4**		**23**	
PM8	**50**	*	**38**		**31**		**31**		**13**		**8**	
PM9	**45**		**38**		**36**		**44**		**20**		**17**	
PM10	**49**		**26**		**49**		**34**		**18**		**19**	
PM11	48		15		63	*	3		11		22	
PM12	39		29		68	*	16		13		19	
CFW1	**57**	*	**35**		**22**		**19**		**23**		**20**	
CFW2	**54**	*	**41**		**24**		**24**		**24**		**29**	
CFW3	67	*	43		24		19		19		21	
CFW4	67	*	24		26		24		9		24	
CFW5	75	*	25		28		22		17		25	
CFW6	76	*	24		12		20		24		15	
CFW7	72	*	24		17		23		14		22	
CFW8	73	*	12		23		15		18		15	
CFW9	64	*	17		33		2		11		26	
CFW10	71	*	22		35		11		15		20	
CFW11	65	*	29		39		22		12		21	
CI1	**15**		**63**	*	**15**		**7**		**23**		**18**	
CI2	**20**		**68**	*	**18**		**22**		**22**		**19**	
CI3	16		77	*	15		6		16		18	

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CI4	12		77	*	20		8		24		8	
CI5	34		70	*	7		15		21		13	
CI6	36		67	*	22		25		21		9	
CI7	**31**		**61**	*	**25**		**32**		**5**		**19**	
CI8	23		73	*	18		32		19		16	
CI9	31		73	*	12		27		15		19	
CI10	31		69	*	17		28		14		21	

Items marked for removal are bolded

Final EFA results

	Factor1		Factor2		Factor3		Factor4		Factor5		Factor6	
ET1	30		26		20		39		20		**60**	*
ET2	19		33		27		20		17		**72**	*
ET3	26		26		15		19		7		**69**	*
ET5	44		27		32		34		16		**46**	*
EE1	19		25		**66**	*	4		11		3	
EE2	10		26		**64**	*	13		5		6	
EE3	16		13		**77**	*	9		9		16	
EE4	11		10		**75**	*	2		4		8	
EE5	13		12		**70**	*	16		4		15	
EEV1	28		19		8		**57**	*	25		38	
EEV2	35		20		10		**59**	*	34		28	
EEV3	33		28		21		**77**	*	18		14	
EEV4	36		29		11		**72**	*	17		17	
EEV5	39		26		22		**60**	*	22		20	
PM2	36		17		13		18		**62**	*	13	
PM3	34		24		5		25		**71**	*	21	
PM11	49		16		12		23		**63**	*	0	
PM12	42		28		13		20		**67**	*	16	
CFW3	**63**	*	39		22		23		27		18	
CFW4	**66**	*	23		11		26		25		20	
CFW5	**74**	*	25		18		25		27		20	
CFW6	**75**	*	25		26		17		10		16	
CFW7	**71**	*	25		16		23		15		20	
CFW8	**78**	*	15		17		16		14		14	
CFW9	**68**	*	19		10		25		27		6	
CFW10	**73**	*	22		16		19		33		12	
CFW11	**70**	*	30		12		20		33		23	
CI3	14		**74**	*	19		17		20		9	
CI4	10		**74**	*	26		8		23		9	
CI5	30		**70**	*	23		16		9		12	
CI6	37		**70**	*	22		14		18		21	
CI8	25		**73**	*	20		21		14		29	
CI9	34		**75**	*	15		24		6		23	

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CI10	34		**71**	*	15		26		11		25	

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WEB APPENDIX

1. Preliminary study: background information about the participants

Participant background (job title, function)	Experience in CEM (years)	Industry
Head of customer experience and insights, CEM	2	Business services
Director, CEM	6	Business services
Consultant, CEM	5	Business services
Consultant, CEM	2	Business services
Manager, CEM	1	Financial services
Manager, CEM	3	Financial services
Head of customer experience and communications, marketing	4	Financial services
Head of customer insights, marketing	7	Financial services
Head of customer experience design, marketing	2	Financial services
Senior manager, strategy and process	3	Financial services
Chief marketing officer, marketing	5	Financial services
Director, operations management	4	Hospitality
Chief customer experience officer, CEM	1	Retailing
Vice president, customer service	3	Retailing
Head of department, operations and CEM	5	Transportation
Head of customer relationships, marketing	4	Telecoms
Head of customer experience usability, CEM	4	Telecoms
Director of customer engagement, marketing	3	Telecoms
Head of customer experience, marketing	1	Utilities
Key accounts manager, sales	3	Utilities

2. Preliminary study: interview protocol

Objective: to explore how organisations perform customer experience management, i.e. we focus on the management of the operational system, the resources and the routines that contribute, directly and indirectly, to customer experience delivery. We seek to identify the key capabilities that organisations develop and nurture to be (or to become) adept at delivering "good" customer experiences. Additionally, the goal of this study is to explore, challenge, validate and enrich the findings from the literature review.

Relevant organisational data on customer experience management will be collected through interviews of managers and documentary evidence (e.g. customer journey maps, internal/external presentations, performance reports, NPS data etc.)

<u>The following themes are to be discussed in interviews with customer experience managers (i.e. individuals who are responsible for managing and improving the customer experience):</u>

A. Background Information
   a. Respondent: Background, Current Job, Experience in CEM

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b. Organisation: Size, Industry, CEM initiative/programme duration

B. Definition and description of the customer experience from the perspective of the organisation
   a. Who is the customer?; What is the offering (features, benefits, value)?
   b. What does "customer experience" mean for you? How would you define the concept?
   c. What is a great/successful customer experience? What benefits/value does a great experience provide to customers?; How important is it to create a successful customer experience?

C. Definition and description of customer experience management (CEM)
   a. What does CEM mean for you? How would you define the concept?
   b. CEM strategy, approaches, methodologies, tools and techniques

D. Experience Capability – potential success factors for CEM to be explored, defined, described and illustrated
   a. Customer insights: ability to gather, understand, capture customer experience requirements and behaviours)
   b. Improvement: ability to develop, use, and maintain an integrated system, including experience-specific tools and techniques, to systematically monitor and improve the customer experience; data-driven)
   c. Organisational mindset / focus employees on customer experience: ability to promote the development of an experience-centric organisation; the ability to create a culture/mindset that has the customer at its heart and to engage employees with it
   d. Integration of multiple service channels to offer seamless/consistent experience: content consistency: same information given to customer regardless of channel choice; process consistency: same characteristics regardless of channel choice etc.
   e. Cross-functional work/integration: ability to coordinate and align the marketing and operations functions within companies, Marketing, Operations, Sales, IT; using an integrated approach to customer experience management
   f. Managing the customer journey (i.e. series of service encounters that make up the whole customer journey from initial needs recognition to fulfilment), where does it start and end? how is it measured and improved?
   g. Engaging customers (i.e. connecting with customers on an emotional and/or cognitive level) through interactions with employees, service/product, communications, physical context, and online environment. Educating, guiding, training, helping customers

3. Item-sorting: background information about the participants

Participant background (job title, discipline)	Experience in academia (years)
Lecturer, service marketing	7
Professor, service operations management	>10
Research fellow, service operations management	9
Professor, management systems	>10
Professor, service operations and process management	>10
Research fellow, marketing management	7

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Associate Professor, operations management and analytics	>10
Senior Lecturer, service operations management	6
Lecturer, service operations management	6
Assistant Professor, services marketing	8
Doctoral candidate, services marketing	2
Doctoral candidate, CEM	2
Doctoral candidate, CEM	3

4. Additional analyses performed to assure the adequacy of the sampling frame

A range of additional analyses were performed to assure the adequacy of the sampling frame. These analyses involved examining the data across all the categorical variables across the entire sample. These results help to further demonstrate the usability of the dataset and the validity of the scales.

A four-step procedure was formulated to conduct this analysis:

1. A MANOVA analysis was conducted across the groups of Customer Type (B2B vs. B2C), Industry, and Organisational Size to check for any overall differences between the six experience capability constructs per these groupings. We found that Industry is the only group for which significant differences were observed, suggesting that there could be an overall industry effect.
2. An ANOVA analysis was conducted to investigate differences between any of the three groups. This test indicated that there could be a Customer Type (B2B / B2C) effect on Empowerment and an Industry effect on both Empowerment and Channel Integration. There was also a marginal effect of Org Size on Cross-Functional Work.
3. An evaluation of group differences (via Tukey comparisons). These group comparisons yielded the following:
    a. Customer Type (6 comparisons): Empowerment is the only construct for which a significant difference was observed between B2B and B2C organisations.
    b. Size (10 comparisons): Cross-Functional Work is the only construct for which a significant difference was observed between organisations with 5,000 to 19,999 employees and organisations with more than 19,999 employees
    c. Industry (468 comparisons): Empowerment is the only construct for which a significant difference was observed between: ‘Education’ and ‘Business Services’; ‘Education’ and ‘Leisure/Entertainment’; and ‘Education’ and ‘Utilities.
4. A t-test for each individual pair of potential combination across the three groups (the total number of comparisons is 484): the tests revealed that there are under 15% of any differences across all the comparisons. Given that the test is very sensitive to sample size and group variance, we are assured of the usability of the dataset.

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Given that there were very few differences across the multitude of comparative tests undertaken, we are assured of the stability of our sample. Little bias (e.g. industry bias) exists as a result of a structural dimension of the sampling frame.

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